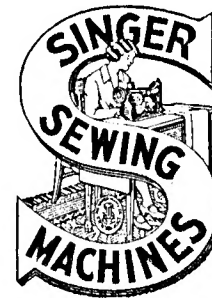


FORM 8486—REVISED
October, 1933
PRINTED IN U. S. A.

LIST OF PARTS



MACHINE No. 52-67

THE SINGER MANUFACTURING COMPANY

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BY THE SINGER MANUFACTURING CO.
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INSTRUCTIONS FOR OILING

To insure easy running and prevent unnecessary wear of the parts which are in movable contact, the machine requires oiling and when in continuous use, should be oiled at least twice each day by applying Singer Cloth and Leather Oil to all oil holes marked "Oil" and to all other oiling places.

Genuine Singer Needles should be used
in Singer Machines.
These Needles and their Containers
are marked with the
Company's Trade Mark "SIMANCO." 1

Needles in Containers marked
"For Singer Machines"
are not Singer made needles. 2

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INSTRUCTIONS FOR ORDERING

In ordering from this list, use **ONLY** the part **NUMBER** in the **FIRST** column.

The number stamped on a Sewing Machine Part is in every case the number of the single part only.

Every combination of parts sent out as such has its specific number, which, although not stamped on the parts, must be used when ordering the combination.

Each number always indicates the **SAME PART** in whatever list it appears, or for whatever machine.

The letters after some of the numbers indicate the style of finish only, as follows:

- A—Hardened, Polished, Nickel Plated and Buffed
- B—Polished, Nickel Plated and Buffed
- C—Hardened Only
- D—Polished Only
- E—Soft, Not Polished
- F—Hardened and Polished
- H—Blued
- J—Nickel Plated Only
- K—Hardened and Nickel Plated
- L—Brass Plated
- M—Oxidized
- N—Japanned, Dull
- P—Japanned, Bright
- R—Merlized
- T—Copper Plated
- T. A.—Hardened, Polished, Copper and Nickel Plated and Buffed
- T. B.—Copper and Nickel Plated and Polished
- T. J.—Copper and Nickel Plated Only
- T. K.—Hardened, Copper and Nickel Plated
- T. M.—Copper Plated and Oxidized
- T. L.—Copper and Brass Plated
- U—Zinc Plated
- V—Silver Plated
- W—Polished and Nickel Plated
- Y—Black Nickel Plated Only
- Z—Chromium Plated
- Z. B.—Polished, Nickel Plated, Buffed and Chromium Plated
- Z. J.—Nickel and Chromium Plated

These letters **MUST BE USED** when they appear in the list; and **AFTER** the number **as** in the list.

In this series:

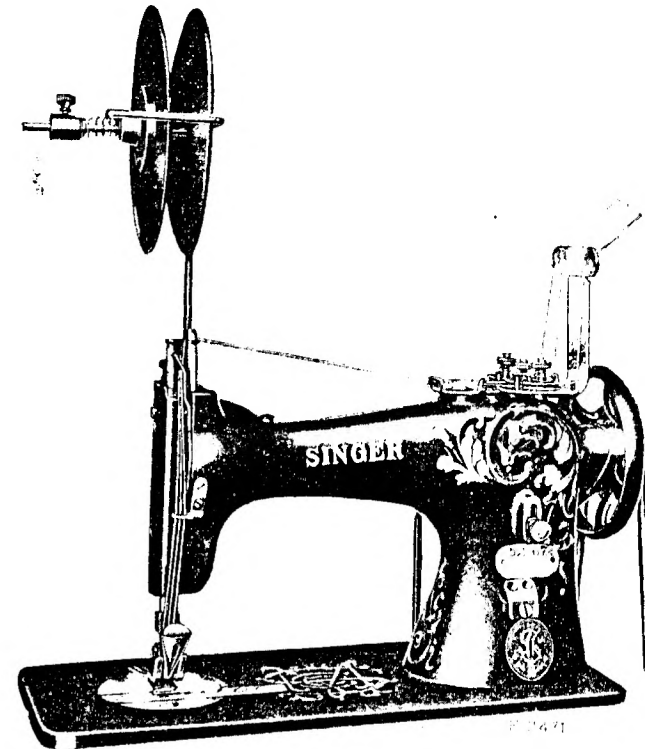
- 1 to 1500 and 50001 to 51500 are Screw Numbers
- 1501 to 1800 and 51501 to 51800 are Nut Numbers
- 1801 to 2000 and 51801 to 52000 are Roller Numbers
- 2001 to 50000 and 52001 and upward are numbers of Machine Parts

The figures in the second column refer only to the plates, illustrating the parts, and are **NOT TO BE USED** in ordering.

Parts marked with an asterisk (*) are furnished only when repairs are made at factory.

When ordering parts which differ as to **Gauge** (the distance between seams) the Gauge, as well as the **Number must be given** on order.

LIST OF PARTS COMPLETE FOR



MACHINE No. 52-67

FOR CLOSING AND TAPING THE HEEL SEAMS OF SHOE LININGS IN ONE OPERATION. THREE NEEDLES, THREE HOOKS. GAUGES $\frac{1}{8}$ INCH TO $\frac{3}{8}$ INCH. HAS TAPE GUIDING FOOT AND ADJUSTABLE LAP SEAM GUIDE. BALANCE WHEEL No. 13796. DIAMETER OF BELT GROOVE $2\frac{3}{16}$ INCHES. SPEED 3000.

NO.	PLATE	NAME
*13915	--	Arm.....
13916	--	" 13915 with 453c, 15101, 15186 and two 15105.....
4389	7145	Arm Dowel Pin.....
51897	7142	" Oil Cup.....

NO.	PLATE	NAME
13862	7442	Arm Oil Tube with 29599, for oiling 13799 and 13804.....
13831	7442	Arm Oil Tube (left) with 49092, for oiling 13811.....
13832	7442	Arm Oil Tube (right) with 49092, for oiling 13813.....
13833	—	Arm Oil Tube Bracket.....
13834	7442	" " " " 13833 with 13831 and 13832.....
898D	7450	Arm Oil Tube Bracket Screw.....
29599	7442	" " " Packing (felt) for 13862....
49092	7442	" " " " " 13831 and 13832.....
880E	7450	Arm Screw (left).....
138E	7450	" " (right).....
13928	8754	" Shaft.....
13794	7440	" " Flanged Bushing (back).....
56006	7442	" " " " " Oil Pad (braided cotton).....
446c	2831	Arm Shaft Flanged Bushing (back) Set Screw.....
13795	7440	Arm Shaft Flanged Bushing (front).....
56006	7442	" " " " " Oil Pad (braided cotton).....
443c	7450	Arm Shaft Flanged Bushing (front) Set Screw.....
144D	7450	Arm Shaft Screw.....
15196	7441	" Side Cover.....
286D	7450	" " " Thumb Screw.....
13796	7441	Balance Wheel, 2 $\frac{3}{16}$ in. pulley, with two 448c.....
13797	7441	Balance Wheel Oil Cover.....
210D	7450	" " " " " Screw.....
448c	7450	" " " Set Screw.....
*13925	—	Bed.....
13799	7441	Crank Connecting Rod with 13800 and two 145E.....
*13800	—	Crank Connecting Rod Cap.....
145E	7450	" " " " " Screw.....
375c	7450	" " " " " Hinge Screw.....
1518E	7450	" " " " " Nut..
13849	7441	Face Plate.....
190D	7442	" " " Screw.....
13506	7467	Feed Bar.....
315c	8753	" " " Screw Center.....
1519E	7450	" " " " " Nut.....
2039	7444	" " " " " Connecting Link.....
378c	7444	" " " " " Hinge Screw (long)

NO.	PLATE	NAME
380c	7444	Feed Connecting Link Hinge Screw (short)
1520E	7444	" " " " " Nut...
31635	5318	" " Dog, 11 teeth (16 teeth to the inch) for 31691.....
31636	7482	Feed Dog, 11 teeth (16 teeth to the inch) for 31692.....
30243	7483	Feed Dog, 13 teeth (16 teeth to the inch) for 31693.....
191c	7450	Feed Dog Screw.....
13803	7444	" " and Feed Lifting Eccentric with 448c
418c	7450	" " " " " Set Screw
13804	7444	" " " " " Sleeve....
13805	7440	" Forked Connection.....
378c	7444	" " " " " Hinge Screw....
1520E	7444	" " " " " Nut
13806	7440	" Lifting Rock Shaft.....
13807	—	Feed Lifting Rock Shaft complete, Nos. 2509 and 13806.....
13808	7440	Feed Lifting Rock Shaft Connecting Rod with 43977 and two 145E.....
*43977	—	Feed Lifting Rock Shaft Connecting Rod Cap.....
145E	7450	Feed Lifting Rock Shaft Connecting Rod Cap Screw.....
375c	7450	Feed Lifting Rock Shaft Connecting Rod Hinge Screw.....
1518E	7450	Feed Lifting Rock Shaft Connecting Rod Hinge Screw Nut.....
2509	7444	Feed Lifting Rock Shaft Crank with 157J and 1813.....
157J	7444	Feed Lifting Rock Shaft Crank Clamping Screw.....
1813	7444	Feed Lifting Rock Shaft Crank Roller and Stud.....
307c	7450	Feed Lifting Rock Shaft Screw Center....
1513J	8753	" " " " " " " Nut
2164	7444	" " " " " " " Regulator.....
74E	7444	" " " " " " " Hinge Screw.....
747D	7444	" " " " " " " Thumb Screw.....
21350	7444	" " " " " " " Stop.....
2047	7440	" " " " " " " Rock Shaft.....
2046	—	Feed Rock Shaft complete, Nos. 2047 and 2048.....
2048	7444	Feed Rock Shaft Crank with 465c.....
2049	7444	" " " " " " " Pin.....
465c	7444	" " " " " " " Set Screw.....
307c	7450	" " " " " " " Screw Center.....
1513J	8753	" " " " " " " Nut.....

NO.	PLATE	NAME
13617	8753	Looper.....
13727	7467	" Carrier with two 211f and three 853c.....
211f	7467	Looper Carrier Set Screw.....
13516	7445	" " Shaft.....
13836	7445	" " " Bushing.....
448c	7450	" " " " Set Screw.....
217f	7450	" " " " Set Screw.....
13811	7441	" Driving Shaft with 217f.....
13812	7445	" " " Crank with two 1253c.....
1253c	7445	" " " " Set Screw.....
13813	7445	" " " Link.....
13814	7445	" " " " Hinge Pin.....
1454c	8753	" " " " " " Set Screw.....
853c	7450	Looper Set Screw.....
13581	7441	Needle Bar (hollow).....
*13582	7444	" " Connecting Link with 794e.....
13933	—	" " " " 13582 with 13896.....
794e	7444	Needle Bar Connecting Link Adjusting Screw.....
881c	7414	Needle Bar Connecting Link Hinge Screw.....
13896	7444	" " " Stud with 1901 and two 175e.....
175e	7444	Needle Bar Connecting Stud Clamping Screw.....
1901	7444	Needle Bar Connecting Stud Roller (roller only).....
13816	7440	Needle Bar Crank with 435c and 1293c.....
1293c	7450	" " " Position Screw.....
435c	2831	" " " Set Screw.....
13545	7455	" Clamp with three 620f or 50014f, for $\frac{1}{8}$ in. to $\frac{3}{16}$ in. gauges.....
13873	7455	Needle Clamp with three 50014f, for $\frac{3}{16}$ in. gauge and above.....
2273	7445	Needle Clamp Pin.....
620f	7445	" Set Screw for 13545.....
50014f	7445	" " " " $\frac{3}{16}$ in. gauge and above.....
*13818	7445	Oscillating Rock Shaft with 1454c.....
13819	7445	" " " Hinge Pin.....
13820	7445	" " " " Bushing.....
448c	7450	" " " " " Set Screw.....
2058	7441	Presser Bar.....
52046	7445	" " Lifter.....
15486	8753	" " " Hinge Stud.....
453c	2831	" " " " " Set Screw.....

NO.	PLATE	NAME
2953	7445	Presser Bar Lifting Bracket with 453c.....
453c	2831	" " " " Set Screw.....
3100	7445	" " Spring.....
2070	7445	" " Washer.....
31661	5435	" Foot (strip folding).....
31660	5435	" " (tube).....
190d	7442	" " Screw.....
263e	7450	Pressure Regulating Thumb Screw.....
13868	7455	Tension Bracket with five 13589.....
13869	—	Tension Bracket complete, Nos. 828e, 13868, two each 637c, 1547d, three each 1560c, 13710 and six 2921.....
2921	7442	Tension Disc.....
13589	7442	" " Steady Pin.....
1560c	7442	" Regulating Thumb Nut.....
637c	7442	" Screw Stud.....
828e	7442	" " " for center tension.....
1517d	7442	" " " Nut.....
13710	7442	" Spring.....
13589	7442	" Thread Guide Pin.....
13929	8753	Thread Controller Post.....
190j	7442	" " " Screw.....
13845	7412	" " Spring.....
233j	7442	" " " Screw.....
13930	8753	" " Thread Guide.....
13931	—	Thread Controller complete, Nos. 233j, 13845 and 13929.....
13850	—	Thread Guide (back of arm) four holes.....
13851	7456	" " " " 13850 with 13862.....
13867	7455	Thread Guide (side of arm) three holes.....
219j	7450	" " " " " Screw.....
13853	—	" " (top of arm) four holes.....
13854	7457	" " " " " 13853 with 13862.....
50062d	7450	Thread Guide (top of arm) Screw.....
13940	8753	" Take-up Plate.....
883b	7445	" " " Screw.....
31691	5318	Throat Plate for 31635.....
31692	7482	" " " 31636.....
31693	7483	" " " 30243.....
694f	7450	" " " Screw.....
*15404	—	Trade Mark.....
15405	—	" " Rivet.....
13635	4511	Drip Pan with four $\frac{1}{4}$ in. wire nails.....

IRON BASE

NO.	PLATE	NAME
11118	7446	Bed Frame Cushion (leather).....
7263	7446	" " Hinge Connection (long).....
14098	7446	" " " " (short).....
14008	7446	" " " " Pin.....
970D	7446	" " Thumb Screw.....
13697	1511	" " with 970D, 2978, 7263, 14098, two 14008 and four each 11118 and wood screws 1 1/4 in. No. 12.....
2978	1514	Drip Pan.....

ACCESSORIES

NO.	PLATE	NAME
12361	7446	Machine Hinge Connection.....
44139	7446	" " Plate.....
44140	—	Machine Hinge complete, Nos. 12361, 44139 and wood screw 1 1/4 in. No. 14.....
12405	7446	Machine Rest (felt).....
41400	7447	" " Pin (wood) 3 1/8 in. long.....
36569	7447	Oiler with 36571.....
36570	—	" 36569, filled with oil.....
36571	7447	" Spout, 1 3/4 in. long, with 36807.....
36807	7446	" " Washer (leather).....
26026	7447	Screw Driver (large).....
26485	7447	" " (small).....
120341	8753	Tweezers (curved).....
8909	7447	Wrench for 1513 and 1518.....
8908	7447	" " 1519 and 1520.....
4822	7447	" " 1521 and 1547.....

LAP SEAM GUIDE

NO.	PLATE	NAME
35818	1517	Lap Seam Guide (left).....
35819	1517	" " " (right).....
35820	—	Lap Seam Guide complete, Nos. 35818 and 35819.....
1423D	7467	Lap Seam Guide Adjusting Screw.....

TAPE HOLDER

(STRAIGHT) 6 IN.

NO.	PLATE	NAME
35821	1518	Bracket Wire.....
35822	1518	Bracket Wire complete, Nos. 26918, 35821 and 35823.....

NO.	PLATE	NAME
*35823	—	Disc.....
*35824	1518	" Hub.....
35825	1518	Disc complete, Nos. 35823 and 35824.....
26918	1518	Tape Guide.....
35826	1517	Tension Adjusting Collar with 286D.....
286D	7450	" " " Thumb Screw.....
13211	7446	" " Spring.....
35827	1518	Tape Holder complete, Nos. 13211, 35822, 35825 and 35826.....
190J	7442	Tape Holder Set Screw.....

FOOT LIFTER PARTS

NO.	PLATE	NAME
5596	7448	Bell Crank.....
5598	—	" " 5596 with 5599 and 5601.....
5599	7448	" " Bracket.....
178E	7450	" " Screw.....
5601	7446	" " Hinge Pin.....
5735	7446	" " Spring.....
5698	7448	Bell Crank complete, Nos. 5735 and 56845.....
5670	—	Chain, length 26 in. to 35 in., with 56844 and 56845.....

NOTE: When ordering 5670, give length required.

4579	7448	Chain Connecting Link.....
56854	8753	" " Hook large.....
56865	8753	" " " small.....
13587	7448	Lifting Lever.....
43588	7448	" " Connecting Rod.....
12416	7446	" " " " " Joint.....
76D	7446	" " " " " Hinge Screw.....
1521E	7446	Lifting Lever Connecting Rod Lock Nut.....
802D	7450	" " " Hinge Screw.....
2763	1511	Rock Shaft.....
12242	1511	" " Hanger with two wood screws 1 in. No. 10.....
6337	1511	Rock Shaft Lifting Bracket with two 356C.....
12243	1511	" " " " " Hook.....
7125	1516	" " " " " ".....
356C	7450	" " " " " Set Screw.....
356C	7450	" " " " " Set Screw.....
2770	1511	" " Stop Dog with 356C.....
356C	7450	" " " " " Set Screw.....
4880	1516	Rock Shaft complete, Nos. 2763, 2770, 7125, 12243 and two each 6337 and 12242.....

NO.	PLATE	NAME
4881	1516	Treadle.....
4882	7448	" Shaft.....
4883	7448	" Spring.....
4884	1516	" Stand.....
4885	1516	Treadle complete, Nos. 4879, 4881 to 4884 and two wood screws 1 in. No. 16.....
13725	—	Foot Lifter complete, Nos. 76D, 802D, 1521E, 4880, 4885, 5598, 5670, 12416, 13587, 13588 and two 178E.....

KNEE LIFTER PARTS

NO.	PLATE	NAME
5596	7448	Bell Crank.....
56848	—	" " 5596 with 5599 and 5601.....
5599	7448	" " Bracket.....
178E	7450	" " " Screw.....
5601	7446	" " Hinge Pin.....
5735	7446	" " Spring.....
5598	7448	Bell Crank complete, Nos. 5735 and 56848
13587	7448	Lifting Lever.....
13588	7448	" " Connecting Rod.....
12416	7446	" " " " Joint.....
76D	7446	" " " " " Hinge Screw.....
1521E	7446	Lifting Lever Connecting Rod Lock Nut..
802D	7450	" " Hinge Screw.....
2763	1511	Rock Shaft.....
12242	1511	" " Hanger with two wood screws 1 in. No. 10.....
2765	1511	Rock Shaft Knee Arm.....
2766	1511	" " " " Hub with 356C....
356C	7450	" " " " " Set Screw.....
2768	—	Rock Shaft Knee Arm complete, Nos. 2765 to 2767.....
2767	1511	Rock Shaft Knee Plate with 356C.....
356C	7450	" " " " " Set Screw.....
6337	1511	" " Lifting Bracket with two 356C
2778	1511	" " " " " Hook.....
356C	7450	" " " " " " Set Screw
356C	7450	" " " " " " Set Screw.....
2770	1511	" " Stop Dog with 356C.....
356C	7450	" " " " " " Set Screw.....
2777	1511	Rock Shaft complete, Nos. 2763, 2768, 2770, 2778, 6337 and two 12242.....
17039	—	Knee Lifter complete, Nos. 76D, 802D, 1521E, 2777, 5598, 12416, 13587, 13588 and two 178E.....

FEED ROLLS

NO.	PLATE	NAME
27971	2830	Feed Roll (lower) with two 446C.....
446C	2831	" " " " Set Screw.....
27972	8754	" " " " Shaft.....
11411	2831	" " " " " Collar with 453C...
453C	2831	" " " " " " Set Screw...
27973	2830	" " " " " Support.....
27974	2830	" " (upper).....
27975	2831	" " " " Bar.....
6533	2831	" " " " " Collar with 460C...
460C	2831	" " " " " " Set Screw...
27976	2831	" " " " " Guide Bracket with 451C.....
454C	2831	Feed Roll (upper) Bar Guide Bracket Set Screw.....
9532	2831	Feed Roll (upper) Bar Lifter with 9533...
81D	2831	" " " " " " Hinge Screw
9533	2831	" " " " " " Stop Pin....
2065	2831	" " " " " Spring.....
27977	2830	" " " " " Bracket with 453C and 910C.....
910C	2831	Feed Roll (upper) Bracket Set Screw....
2932	2830	" " " " " Shaft.....
453C	2831	" " " " " " Set Screw.....
27978	8754	" " Frame.....
27979	8754	" " Pulley (grooved) 9 7/8 in. diam., with 435C.....
435C	2831	Feed Roll Pulley (grooved) Set Screw....
27980	—	Feed Rolls complete, Nos. 81D, 2065, 2932, 6533, 9532, 11411, 27971 to 27979 and six wood screws 1 1/4 in. No. 12.....

THREAD UNWINDER

FOR THREE SPOOLS

NO.	PLATE	NAME
225259	8755	Spool Rest (for one spool) with 201018C...
225257	8755	" " (for two spools) with 201018C...
150203	8755	" " Cushion (felt).....
225388	8755	" " Rod.....
200383C	8753	" " " " Set Screw.....
201018C	8753	" " " " Set Screw.....
202490	8755	" " Stand with 200383C.....
225391	8755	Thread Guide.....
201696J	8753	" " Lock Nut.....
225326	8753	" " Position Cup.....

NO.	PLATE	NAME
225324	8755	Thread Guide Rod with 208E and 225322
208E	7450	" " " Screw.....
225322	8753	" " " Washer.....
259143	8755	Thread Unwinder complete, Nos. 201606J, 202490, 225257, 225259, 225324, 225320, 225388, three each 150203, 225391 and wood screws $\frac{3}{8}$ in. No. 12.....
27739	7234	Thread Cone (wood) for large cones.....
225390	7234	" " Holder, for inverted cones..

NOTE: Nos. 27739 and 225390 are used with,
but not included in 259143

OBSOLETE PARTS

NO.	PLATE	NAME
*13789	—	Arm, use 13946.....
13793	7440	" Shaft.....
13809	7445	Looper.....
1253c	7445	" Driving Shaft Link Hinge Pin Set Screw.....
13815	—	Needle Bar Connecting Stud with 1904 and two 640c, use 13896.....
640c	7450	Needle Bar Connecting Stud Clamping Screw for 13815.....
1058c	7445	Presser Bar Lifter Hinge Screw, superseded by 15486, not interchangeable.....
1520E	7444	Presser Bar Lifter Hinge Screw Nut.....
26070	7446	Tape Holder Disc Hub Rivet.....
13844	7442	Thread Controller Post for 13847.....
13846	7442	" " Thread Guide for 13847
13847	—	Thread Controller complete, Nos. 233c, 13844 and 13845.....
13594	7445	Thread Take-up Plate, use 13940.....
27623	5571	" Unwinder Spool Pin for 41435....
155c	7450	" " " " Set Screw for 41435.....
41434	5571	Thread Unwinder Spool Rest for 41435...
41435	—	" " " " 41434 with 1149c and three each 155c and 27623, for 41438.....
1149c	7450	Thread Unwinder Spool Rest Set Screw for 41435.....
27940	5571	Thread Unwinder Spool Stand with 453c, for 41438.....
41514	5571	Thread Unwinder Spool Weight, 4 in. diam., with 41515, for 41438.....

NO.	PLATE	NAME
41515	7446	Thread Unwinder Spool Weight Center Pin for 41514.....
41632	5571	Thread Unwinder Thread Guard with 208E and three 41569, for 41438.....
41569	7446	Thread Unwinder Thread Guard Eyelet for 41632.....
41637	5571	Thread Unwinder Thread Guard Rod (lower) for 41640.....
41638	5571	Thread Unwinder Thread Guard Rod (upper) for 41640.....
41639	5571	Thread Unwinder Thread Guard Rod Coupling with two 456c, for 41640.....
456c	7450	Thread Unwinder Thread Guard Rod Coupling Set Screw for 41639.....
41640	—	Thread Unwinder Thread Guard Rod complete, 30 in. long, for 41438, Nos. 41637 to 41639.....
453c	2831	Thread Unwinder Thread Guard Rod Set Screw for 27910.....
208E	7450	Thread Unwinder Thread Guard Screw for 41632.....
41438	5571	Thread Unwinder complete, Nos. 27940, 41435, 41632, 41640 and three each 27739, 41514 and wood screws 1 in. No. 12.....
35143	7447	Tweezers, 4 in., use 120341 (Accessories)..

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in Singer Machines.
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74-7-12-1	Pen	Recessing	11	100
74-7-12-10	Light	Boat	11	100
74-7-12-11	Light	Boat	11	100
74-7-12-12	Light	Boat	11	100
74-7-12-13	Light	Boat	11	100
74-7-12-14	Light	Boat	11	100
74-7-12-15	Light	Boat	11	100
74-7-12-16	Light	Boat	11	100
74-7-12-17	Light	Boat	11	100
74-7-12-18	Light	Boat	11	100
74-7-12-19	Light	Boat	11	100
74-7-12-20	Light	Boat	11	100
74-7-12-21	Light	Boat	11	100
74-7-12-22	Light	Boat	11	100
74-7-12-23	Light	Boat	11	100
74-7-12-24	Light	Boat	11	100
74-7-12-25	Light	Boat	11	100
74-7-12-26	Light	Boat	11	100
74-7-12-27	Light	Boat	11	100
74-7-12-28	Light	Boat	11	100
74-7-12-29	Light	Boat	11	100
74-7-12-30	Light	Boat	11	100
74-7-12-31	Light	Boat	11	100

FOR

[illegible]

NUMERICAL LIST OF PARTS

NO. PLATE	NAME
74E 7444	Feed Regulator Hinge Screw.....
76D 7446	Lifting Lever Connecting Rod Joint Hinge Screw for 13725 and 17039
81D 2831	Feed Roll (upper) Bar Lifter Hinge Screw for 27980
138E 7450	Arm Screw (right).....
144D 7450	" Shaft Screw
145E 7450	Crank Connecting Rod Cap Screw for 13799
145E 7450	Feed Lifting Rock Shaft Connecting Rod Cap Screw for 13808
155C 7450	Thread Unwinder Spool Pin Set Screw for 11435, obsolete
157J 7444	Feed Lifting Rock Shaft Crank Clamping Screw for 2509
175E 7444	Needle Bar Connecting Stud Clamping Screw for 13896
178E 7450	Bell Crank Bracket Screw for 13725 and 17039
190D 7442	Face Plate Screw
190J 7442	Presser Foot Screw
190J 7442	Thread Controller Post Screw
190J 7442	Tape Holder Set Screw
191C 7450	Feed Dog Screw
208E 7450	Thread Unwinder Thread Guard Screw for 41632, obsolete
208E 7450	Thread Unwinder Thread Guide Rod Screw for 225324
210D 7450	Balance Wheel Oil Cover Screw
241F 7467	Looper Carrier Set Screw for 13727
247F 7450	" " Shaft Set Screw for 13811
249J 7450	Thread Guide (side of arm) Screw
233J 7442	" Controller Spring Screw for 13817 and 13931
263E 7450	Pressure Regulating Thumb Screw
286D 7450	Arm Side Cover Thumb Screw
286D 7450	Tape Holder Tension Adjusting Collar Thumb Screw for 35826
307C 7450	Feed Lifting Rock Shaft Screw Center
307C 7450	" Rock Shaft Screw Center
315C 8753	" Bar Screw Center
356C 7450	Rock Shaft Knee Arm Hub Set Screw for 2766
356C 7450	Rock Shaft Knee Plate Set Screw for 2767

NO. PLATE	NAME
356c 7450	Rock Shaft Lifting Bracket Hook Set Screw for 6337.....
356c 7450	Rock Shaft Lifting Bracket Set Screw for 6337.....
356c 7450	Rock Shaft Stop Dog Set Screw for 2770...
375c 7450	Crank Connecting Rod Hinge Screw.....
375c 7450	Feed Lifting Rock Shaft Connecting Rod Hinge Screw.....
378c 7444	Feed Connecting Link Hinge Screw (long)
378c 7444	" Forked Connection Hinge Screw.....
380c 7444	" Connecting Link Hinge Screw (short)
435c 2831	Needle Bar Crank Set Screw for 13816...
435c 2831	Feed Roll Pulley (grooved) Set Screw for 27979.....
443c 7450	Arm Shaft Flanged Bushing (front) Set Screw.....
446c 2831	Arm Shaft Flanged Bushing (back) Set Screw.....
446c 2831	Feed Roll (lower) Set Screw for 27971....
448c 7450	Balance Wheel Set Screw for 13796.....
448c 7450	Feed and Feed Lifting Eccentric Set Screw for 13803.....
448c 7450	Looper Carrier Shaft Bushing Set Screw..
448c 7450	Oscillating Rock Shaft Hinge Pin Set Screw
453c 2831	Feed Roll (lower) Shaft Collar Set Screw for 11411.....
453c 2831	Feed Roll (upper) Shaft Set Screw for 27977.....
453c 2831	Presser Bar Lifter Hinge Stud Set Screw for 13946.....
453c 2831	Presser Bar Lifting Bracket Set Screw for 2953.....
453c 2831	Thread Unwinder Thread Guard Rod Set Screw for 27940, obsolete.....
454c 2831	Feed Roll (upper) Bar Guide Bracket Set Screw for 27976.....
456c 7450	Thread Unwinder Thread Guard Rod Coupling Set Screw for 41639, obsolete..
460c 2831	Feed Roll (upper) Bar Collar Set Screw for 6533.....
465c 7444	Feed Rock Shaft Crank Set Screw for 2048
620f 7445	Needle Set Screw for 13545.....
637c 7442	Tension Screw Stud for 13869.....
640c 7450	Needle Bar Connecting Stud Clamping Screw for 13815, obsolete.....
691f 7450	Throat Plate Screw.....
747d 7444	Feed Regulator Thumb Screw.....

NO. PLATE	NAME
794e 7444	Needle Bar Connecting Link Adjusting Screw for 13582.....
802d 7450	Lifting Lever Hinge Screw for 13725 and 17039.....
828c 7442	Tension Screw Stud, for center tension, for 13869.....
853c 7450	Looper Set Screw for 13727.....
880e 7450	Arm Screw (left).....
881c 7444	Needle Bar Connecting Link Hinge Screw
883b 7445	Thread Take-up Plate Screw.....
898d 7450	Arm Oil Tube Bracket Screw.....
910c 2831	Feed Roll (upper) Bracket Set Screw for 27977.....
970d 7446	Bed Frame Thumb Screw for 13697.....
1058c 7445	Presser Bar Lifter Hinge Screw, obsolete, superseded by 15186, not interchangeable
1149c 7450	Thread Unwinder Spool Rest Set Screw for 41435, obsolete.....
1253c 7445	Looper Driving Shaft Crank Set Screw for 13812.....
1253c 7445	Looper Driving Shaft Link Hinge Pin Set Screw, obsolete.....
1293c 7450	Needle Bar Crank Position Screw for 13816
1423d 7467	Lap Seam Guide Adjusting Screw.....
1451c 8753	Looper Driving Shaft Link Hinge Pin Set Screw for 13818.....
1513a 8753	Feed Lifting Rock Shaft Screw Center Nut
1513a 8753	" Rock Shaft Screw Center Nut.....
1518e 7450	Crank Connecting Rod Hinge Screw Nut..
1518e 7450	Feed Lifting Rock Shaft Connecting Rod Hinge Screw Nut.....
1519e 7450	Feed Bar Screw Center Nut.....
1520e 7444	" Connecting Link Hinge Screw Nut..
1520e 7444	" Forked Connection Hinge Screw Nut
1520e 7444	Presser Bar Lifter Hinge Screw Nut, obsolete.....
1521e 7446	Lifting Lever Connecting Rod Lock Nut for 13725 and 17039.....
1517d 7442	Tension Screw Stud Nut for 13869.....
1560c 7412	" Regulating Thumb Nut for 13869
1813 7444	Feed Lifting Rock Shaft Crank Roller and Stud for 2509.....
1901 7444	Needle Bar Connecting Stud Roller (roller only) for 13815 and 13896.....
2039 7414	Feed Connecting Link.....
2046 —	Feed Rock Shaft complete, Nos. 2017 and 2048.....

NO.	PLATE	NAME
2047	7440	Feed Rock Shaft for 2046.....
2048	7444	" " " Crank with 465c, for 2046.....
2049	7444	Feed Rock Shaft Crank Pin.....
2058	7441	Presser Bar.....
2065	2831	Feed Roll (upper) Bar Spring for 27980...
2070	7445	Presser Bar Spring Washer.....
2164	7444	Feed Regulator.....
2273	7445	Needle Clamp Pin.....
2509	7444	Feed Lifting Rock Shaft Crank with 157J and 1813, for 13807.....
2763	1511	Rock Shaft for 4880 and 2777.....
2765	1511	" " " Knee Arm for 2768.....
2766	1511	" " " " Hub with 356c, for 2768.....
2767	1511	Rock Shaft Knee Plate with 356c, for 2768
2768	—	Rock Shaft Knee Arm complete, Nos. 2765 to 2767, for 2777.....
2770	1511	Rock Shaft Stop Dog with 356c, for 4880 and 2777.....
2777	1511	Rock Shaft complete, Nos. 2763, 2768, 2770, 2778, 6337 and two 12242, for 17039.....
2778	1511	Rock Shaft Lifting Bracket Hook for 2777
2921	7442	Tension Disc for 13869.....
2932	2830	Feed Roll (upper) Shaft for 27980.....
2953	7445	Presser Bar Lifting Bracket with 453c....
2978	1514	Drip Pan for 13697.....
3100	7445	Presser Bar Spring.....
4389	7445	Arm Dowel Pin.....
4822	7447	Wrench for 1521 and 1547 (Accessories)...
4879	7448	Chain Connecting Link for 4885.....
4880	1516	Rock Shaft complete, for 13725, Nos. 2763, 2770, 7125, 12243 and two each 6337 and 12242.....
4881	1516	Treadle for 4885.....
4882	7448	" Shaft for 4885.....
4883	7448	" Spring for 4885.....
4884	1516	" Stand for 4885.....
4885	1516	Treadle complete, for 13725, Nos. 4879, 4881 to 4884 and two wood screws 1 in. No. 16.....
5596	7448	Bell Crank for 56848.....
5598	7448	Bell Crank complete, Nos. 5735 and 56848, for 13725 and 17039.....
5599	7448	Bell Crank Bracket for 56848.....
5601	7446	" " Hinge Pin for 56848.....

NO.	PLATE	NAME
5670	—	Chain, length 26 in. to 35 in., with 56864 and 56865, for 13725.....
5735	7446	Bell Crank Spring, for 5598.....
6337	1511	Rock Shaft Lifting Bracket with two 356c, for 4880 and 2777.....
6533	2831	Feed Roll (upper) Bar Collar with 460c, for 27980.....
7125	1516	Rock Shaft Lifting Bracket Hook for 4880.....
7263	7446	Bed Frame Hinge Connection (long) for 13697.....
8908	7417	Wrench for 1519 and 1520 (Accessories)...
8909	7447	" " 1513 and 1518 (Accessories)...
9532	2831	Feed Roll (upper) Bar Lifter with 9533, for 27980.....
9533	2831	Feed Roll (upper) Bar Lifter Stop Pin for 9532.....
11118	7416	Bed Frame Cushion (leather) for 13697...
11411	2831	Feed Roll (lower) Shaft Collar with 453c, for 27980.....
12242	1511	Rock Shaft Hanger with two wood screws 1 in. No. 10, for 4880 and 2777.....
12243	1511	Rock Shaft Lifting Bracket for 4880.....
12361	7446	Machine Hinge Connection for 11410.....
12405	7446	" Rest (felt) Accessories.....
12416	7446	Lifting Lever Connecting Rod Joint for 13725 and 17039.....
13211	7446	Tape Holder Tension Adjusting Spring for 35827.....
13506	7467	Feed Bar.....
13516	7445	Looper Carrier Shaft.....
13545	7455	Needle Clamp with three 620r or 50014r, for 1½ in. to 1¼ in. gauges.....
13581	7444	Needle Bar (hollow).....
*13582	7444	" " Connecting Link with 794r, for 13933.....
13587	7448	Lifting Lever for 13725 and 17039.....
13588	7448	" " Connecting Rod for 13725 and 17039.....
13589	7442	Tension Disc Steady Pin for 13868.....
13589	7442	" Thread Guide Pin.....
13594	7445	Thread Take-up Plate, obsolete, use 13940
13617	8753	Looper.....
13635	1514	Drip Pan with four 1 in. wire nails.....
13697	1511	Bed Frame with 970r, 2978, 7263, 14098, two 14008 and four each 11418 and wood screws 1¼ in. No. 12.....

NO.	PLATE	NAME
13710	7442	Tension Spring for 13869.....
13725	—	Foot Lifter complete, Nos. 76D, 802D, 1521E, 4880, 4885, 5598, 5670, 1241E, 13587, 13588 and two 178E.....
13727	7467	Looper Carrier with two 211F and three 853C.....
*13789	—	Arm, obsolete, use 13946.....
13793	7440	" Shaft, obsolete.....
13794	7440	" " Flanged Bushing (back).....
13795	7440	" " " " (front).....
13796	7441	Balance Wheel, 2 $\frac{3}{16}$ in. pulley, with two 448C.....
13797	7441	Balance Wheel Oil Cover.....
13799	7441	Crank Connecting Rod with 13800 and two 145E, for 13862.....
*13800	—	Crank Connecting Rod Cap for 13799.....
13803	7444	Feed and Feed Lifting Eccentric with 448C.....
13804	7444	Feed and Feed Lifting Eccentric Sleeve for 13862.....
13805	7440	Feed Forked Connection.....
13806	7440	" Lifting Rock Shaft for 13807.....
13807	—	Feed Lifting Rock Shaft complete, Nos. 2509 and 13806.....
13808	7440	Feed Lifting Rock Shaft Connecting Rod with 43977 and two 145E.....
13809	7445	Looper, obsolete.....
13811	7441	" Driving Shaft with 217F, for 13831.....
13812	7445	Looper Driving Shaft Crank with two 1253C.....
13813	7445	Looper Driving Shaft Link.....
13814	7445	" " " " Hinge Pin.....
13815	—	Needle Bar Connecting Stud with 1904 and two 640C, obsolete, use 13896.....
13816	7440	Needle Bar Crank with 435C and 1203C...
*13818	7445	Oscillating Rock Shaft with 1454C.....
13819	7445	" " " " Hinge Pin.....
13820	7445	" " " " " Bushing.....
13831	7442	Arm Oil Tube (left) with 49092, for oiling 13811, for 13834.....
13832	7442	Arm Oil Tube (right) with 49092, for oiling 13813, for 13834.....
13833	—	Arm Oil Tube Bracket for 13834.....
13834	7442	" " " " 13833 with 13831 and 13832.....
13836	7445	Looper Carrier Shaft Bushing.....

NO.	PLATE	NAME
13844	7442	Thread Controller Post for 13847, obsolete
13845	7442	" " Spring for 13847 and 13931.....
13846	7442	Thread Controller Thread Guide for 13847, obsolete.....
13817	—	Thread Controller complete, Nos. 233J, 13844 and 13845, obsolete.....
13849	7441	Face Plate.....
13850	—	Thread Guide (back of arm) four holes, for 13851.....
13851	7456	Thread Guide (back of arm) 13850 with 13862.....
13853	—	Thread Guide (top of arm) four holes, for 13854.....
13854	7457	Thread Guide (top of arm) 13853 with 13862.....
13862	7442	Arm Oil Tube with 29599, for oiling 13799 and 13804, for 13851 and 13854.....
13867	7155	Thread Guide (side of arm) three holes ..
13868	7455	Tension Bracket with five 13589, for 13869
13869	—	Tension Bracket complete, Nos. 828C, 13868, two each 637C, 1547D, three each 1560C, 13710 and six 2921.....
13873	7455	Needle Clamp with three 50014F, for $\frac{3}{16}$ in. gauge and above.....
13896	7444	Needle Bar Connecting Stud with 1904 and two 175E, for 13933.....
*13925	—	Bed.....
13928	8751	Arm Shaft.....
13929	8753	Thread Controller Post for 13931.....
13930	8753	" " Thread Guide.....
13931	—	Thread Controller complete, Nos. 233J, 13845 and 13929.....
13933	—	Needle Bar Connecting Link 13582 with 13896.....
13940	8753	Thread Take-up Plate.....
*13945	—	Arm for 13946.....
13946	—	" 13945 with 453C, 15404, 15486 and two 15405.....
14008	7446	Bed Frame Hinge Connection Pin for 13697.....
11098	7446	Bed Frame Hinge Connection (short) for 13697.....
15196	7441	Arm Side Cover.....
*15401	—	Trade Mark for 13946.....
15405	—	" " Rivet for 13946.....
15486	8753	Presser Bar Lifter Hinge Stud for 13946..

NO.	PLATE	NAME
17039	—	Knee Lifter complete, Nos. 76D, 802D, 1521E, 2777, 5598, 12416, 13587, 13588 and two 178E.....
21350	7444	Feed Regulator Thumb Screw Stop.....
26026	7447	Screw Driver (large) Accessories.....
26070	7446	Tape Holder Disc Hub Rivet, obsolete...
26485	7447	Screw Driver (small) Accessories.....
26918	1518	Tape Holder Tape Guide for 35822.....
27623	5571	Thread Unwinder Spool Pin for 41435, obsolete.....
27739	7234	Thread Unwinder Thread Cone (wood) for large cones.....
27940	5571	Thread Unwinder Spool Stand with 453c, for 41438, obsolete.....
27971	2830	Feed Roll (lower) with two 446c, for 27980
27972	8754	" " " Shaft for 27980.....
27973	2830	" " " Support for 27980.
27974	2830	" " (upper) for 27980.....
27975	2831	" " (upper) Bar for 27980.....
27976	2831	" " " Guide Bracket with 454c, for 27980.....
27977	2830	Feed Roll (upper) Bracket with 453c and 910c, for 27980.....
27978	8754	Feed Roll Frame for 27980.....
27979	8754	" " Pulley (grooved) 9 $\frac{7}{8}$ in. diam., with 435c, for 27980.....
27980	—	Feed Rolls complete, Nos. 81D, 2065, 2932, 6533, 9532, 11411, 27971 to 27979 and six wood screws 1 $\frac{1}{4}$ in. No. 12....
29599	7442	Arm Oil Tube Packing (felt) for 13862...
30243	7483	Feed Dog, 13 teeth (16 teeth to the inch) for 31693.....
31635	5318	Feed Dog, 11 teeth (16 teeth to the inch) for 31691.....
31636	7482	Feed Dog, 11 teeth (16 teeth to the inch) for 31692.....
31660	5435	Presser Foot (tube).....
31661	5435	" " (strip folding).....
31691	5318	Throat Plate for 31635.....
31692	7482	" " " 31636.....
31693	7483	" " " 30243.....
35143	7447	Tweezers, 4 in., obsolete, use 120341 (Accessories).....
35818	1517	Lap Seam Guide (left) for 35820.....
35819	1517	" " " (right) for 35820.....
35820	—	Lap Seam Guide complete, Nos. 35818 and 35819.....
35821	1518	Tape Holder Bracket Wire for 35822.....

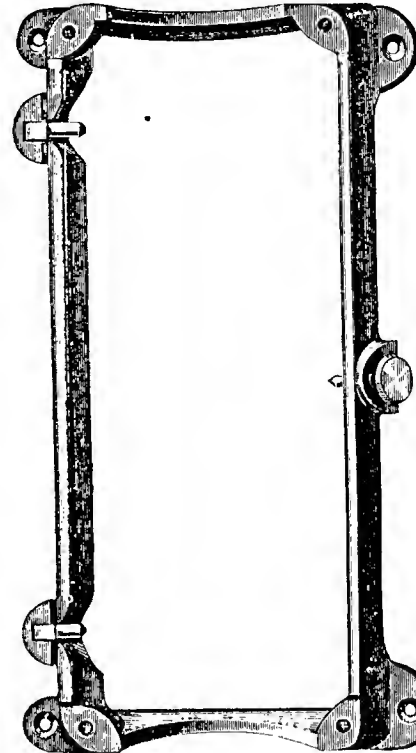
NO.	PLATE	NAME
35822	1518	Tape Holder Bracket Wire complete, Nos. 26918, 35821 and 35823, for 35827.....
*35823	—	Tape Holder Disc for 35822 and 35825...
*35824	1518	" " " Hub for 35825.....
35825	1518	Tape Holder Disc complete, Nos. 35823 and 35824, for 35827.....
35826	1517	Tape Holder Tension Adjusting Collar with 286D, for 35827.....
35827	1518	Tape Holder (straight) 6 in. disc., complete, Nos. 13211, 35822, 35825 and 35826.....
36569	7447	Oiler with 36571 for 36570.....
36570	—	" 36569, filled with oil (Accessories)...
36571	7447	" Spout, 1 $\frac{3}{4}$ in. long, with 36807, for 36569.....
36807	7446	Oiler Spout Washer (leather) for 36571...
41400	7447	Machine Rest Pin (wood) 3 $\frac{1}{8}$ in. long (Accessories).....
41434	5571	Thread Unwinder Spool Rest for 41435, obsolete.....
41435	—	Thread Unwinder Spool Rest 41434 with 1149c and three each 155c and 27623, for 41438, obsolete.....
41438	5571	Thread Unwinder complete, Nos. 27940, 41435, 41632, 41640 and three each 27739, 41514 and wood screws 1 in. No. 12, obsolete.....
41514	5571	Thread Unwinder Spool Weight, 4 inch diam., with 41515, for 41438, obsolete...
41515	7446	Thread Unwinder Spool Weight Center Pin for 41511, obsolete.....
41569	7446	Thread Unwinder Thread Guard Eyelet for 41632, obsolete.....
41632	5571	Thread Unwinder Thread Guard with 208E and three 41569, for 41438, obsolete
41637	5571	Thread Unwinder Thread Guard Rod (lower) for 41640, obsolete.....
41638	5571	Thread Unwinder Thread Guard Rod (upper) for 41640, obsolete.....
41639	5571	Thread Unwinder Thread Guard Rod Coupling with two 456c, for 41640, obsolete.....
41640	—	Thread Unwinder Thread Guard Rod complete, 30 in. long, for 41438, Nos. 41637 to 41639, obsolete.....
*43977	—	Feed Lifting Rock Shaft Connecting Rod Cap for 13808.....

NO.	PLATE	NAME
44139	7446	Machine Hinge Plate for 44140.....
44140	—	Machine Hinge complete, Nos. 12361, 44139 and wood screws $1\frac{1}{4}$ in. No. 14..
49092	7442	Arm Oil Tube Packing (felt) for 13831 and 13832.....
50014F	7445	Needle Set Screw, for $\frac{3}{4}$ in. gauge and above, for 13545 and 13873.....
50062J	7450	Thread Guide (top of arm) Screw.....
52016	7445	Presser Bar Lifter.....
54897	7442	Arm Oil Cup.....
56006	7442	" Shaft Flanged Bushing (back) Oil Pad (braided cotton).....
56006	7442	Arm Shaft Flanged Bushing (front) Oil Pad (braided cotton).....
56848	—	Bell Crank 5596 with 5599 and 5601, for 5598
56864	8753	Chain Hook (large) for 5670.....
56865	8753	" " (small) for 5670.....
120341	8753	Tweezers (curved) Accessories.....
150203	8755	Thread Unwinder Spool Rest Cushion (felt) for 259143.....
200383c	8753	Thread Unwinder Spool Rest Rod Set Screw for 202490.....
201018c	8753	Thread Unwinder Spool Rest Set Screw for 225259.....
201696a	8753	Thread Unwinder Thread Guide Lock Nut for 259143.....
202490	8755	Thread Unwinder Spool Stand with 200383c, for 259143.....
225257	8755	Thread Unwinder Spool Rest (for two spools) with 201018c, for 259143.....
225259	8755	Thread Unwinder Spool Rest (for one spool) with 201018c, for 259143.....
225322	8753	Thread Unwinder Thread Guide Rod Washer for 225324.....
225324	8755	Thread Unwinder Thread Guide Rod with 208E and 225322, for 259143.....
225326	8753	Thread Unwinder Thread Guide Position Cup for 259143.....
225388	8755	Thread Unwinder Spool Rest Rod for 259143.....
225390	7234	Thread Unwinder Thread Cone Holder, for inverted cones.....
225391	8755	Thread Unwinder Thread Guide for 259143
259143	8755	Thread Unwinder complete (for three spools), Nos. 201696a, 202490, 225257, 225259, 225324, 225326, 225388, three each 150203, 225391 and wood screws $\frac{7}{8}$ No. 12.....

ILLUSTRATIONS OF PARTS FOR MACHINE No. 52-67

PLATE 1511—ONE-FOURTH SIZE

13697



12243

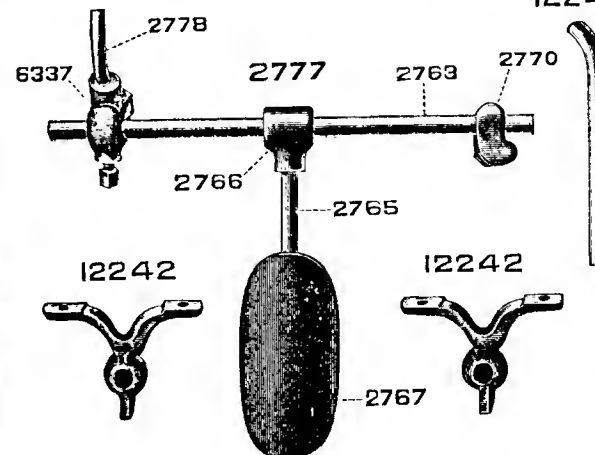
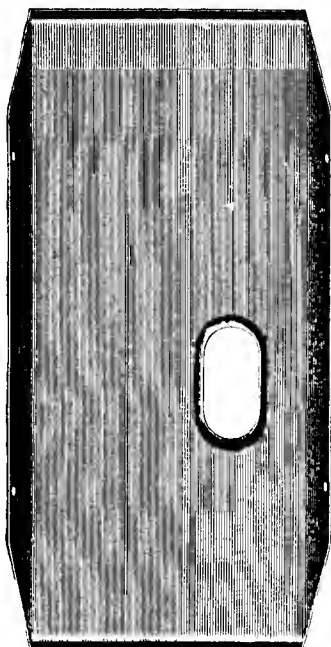


PLATE 1514—ONE-FOURTH SIZE

13635



2978

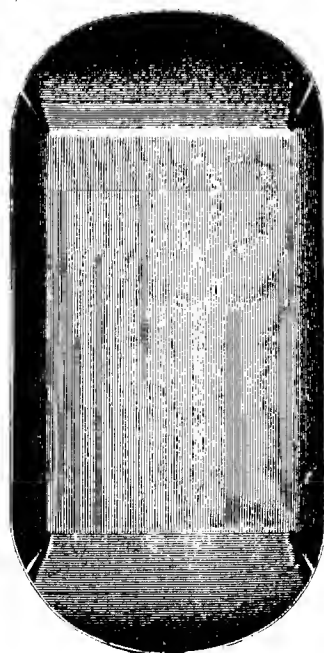


PLATE 1516—ONE-FOURTH SIZE

12242



12242



4880

6337

2770

2763

12243

7125

27724



4885

4881

4884



PLATE 1517—FULL SIZE

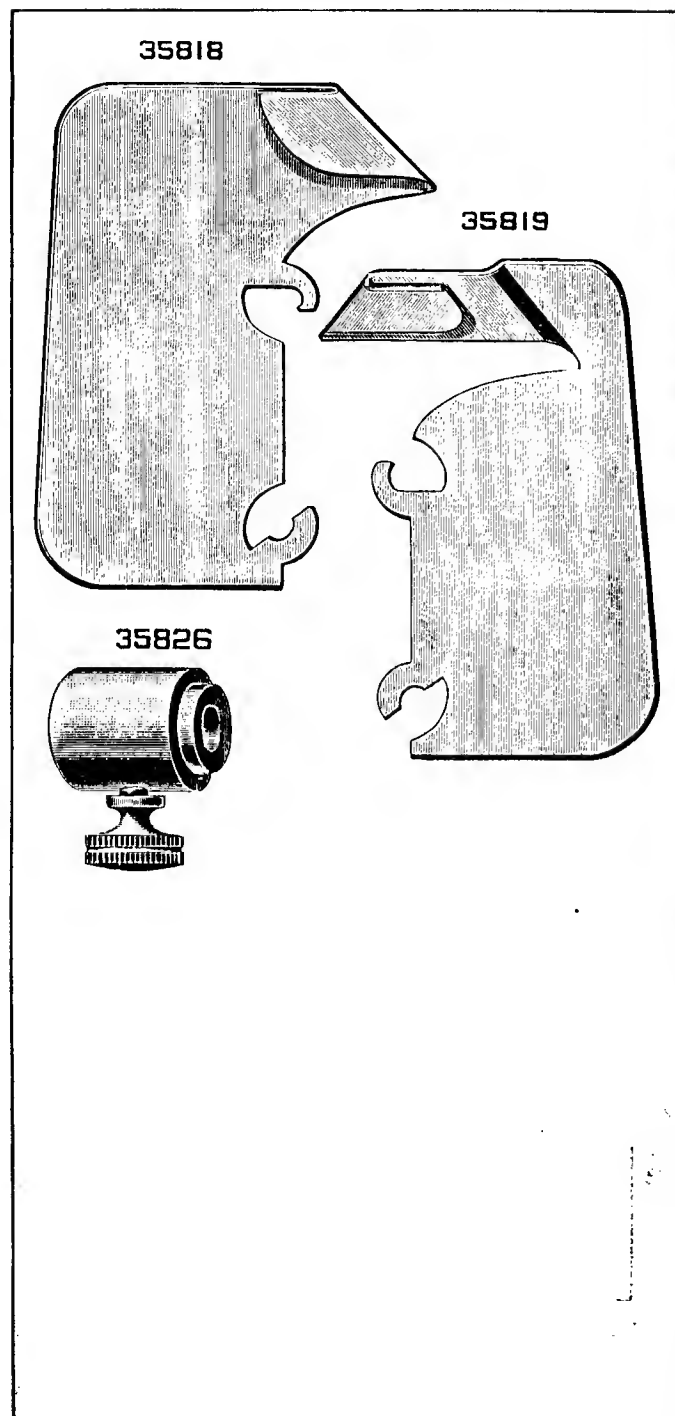


PLATE 1518—ONE-HALF SIZE

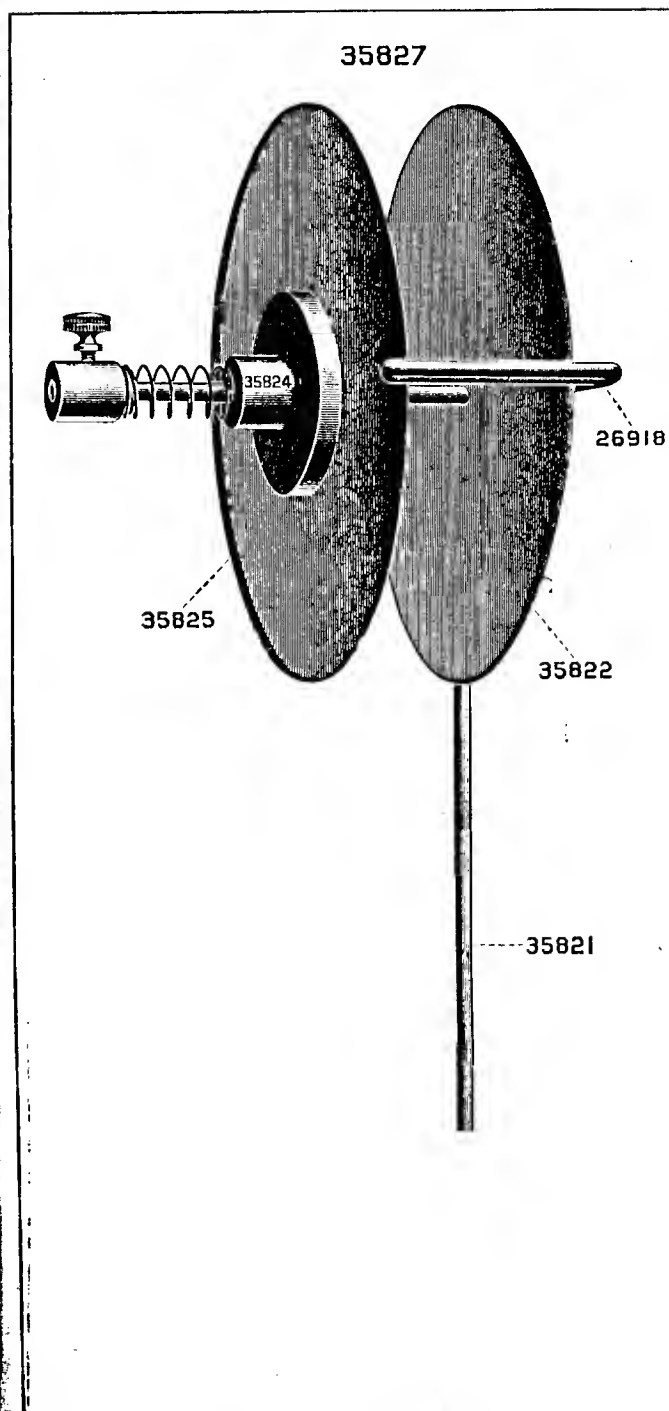
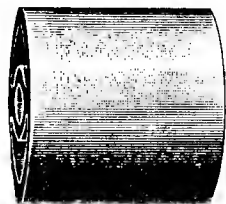
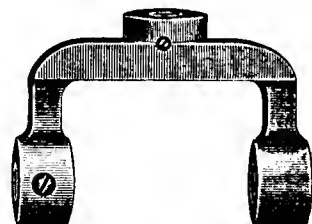


PLATE 2830—ONE-HALF SIZE

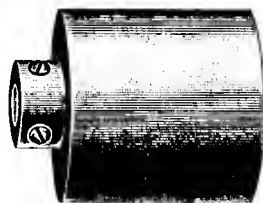
27974



27977



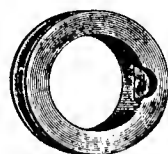
27971



2932



27982



27973

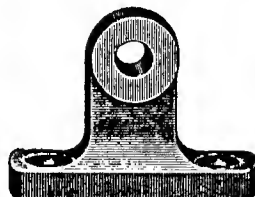


PLATE 2831—FULL SIZE

27975



2065



27976



454



11411



453



9532



81



6533



9533



460



435



910



446



1337

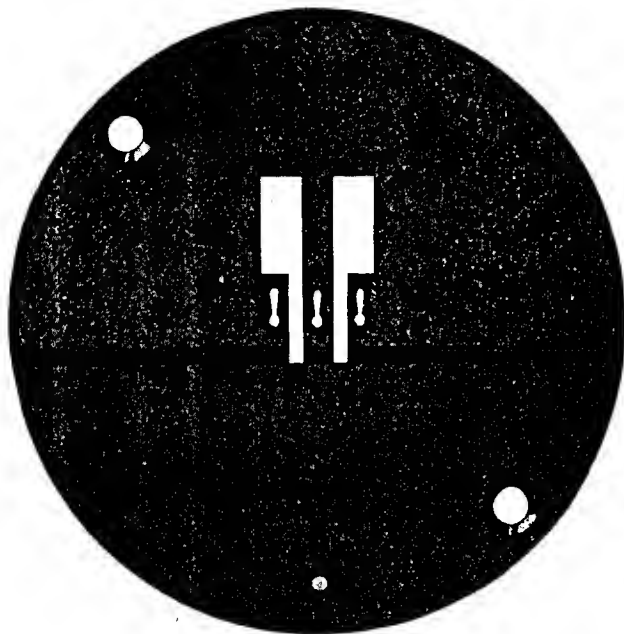


451



PLATE 5318—FULL SIZE

31691



31635



PLATE 5435—FULL SIZE

31660



31660



31661



31661



PLATE 5571—ONE-FOURTH SIZE

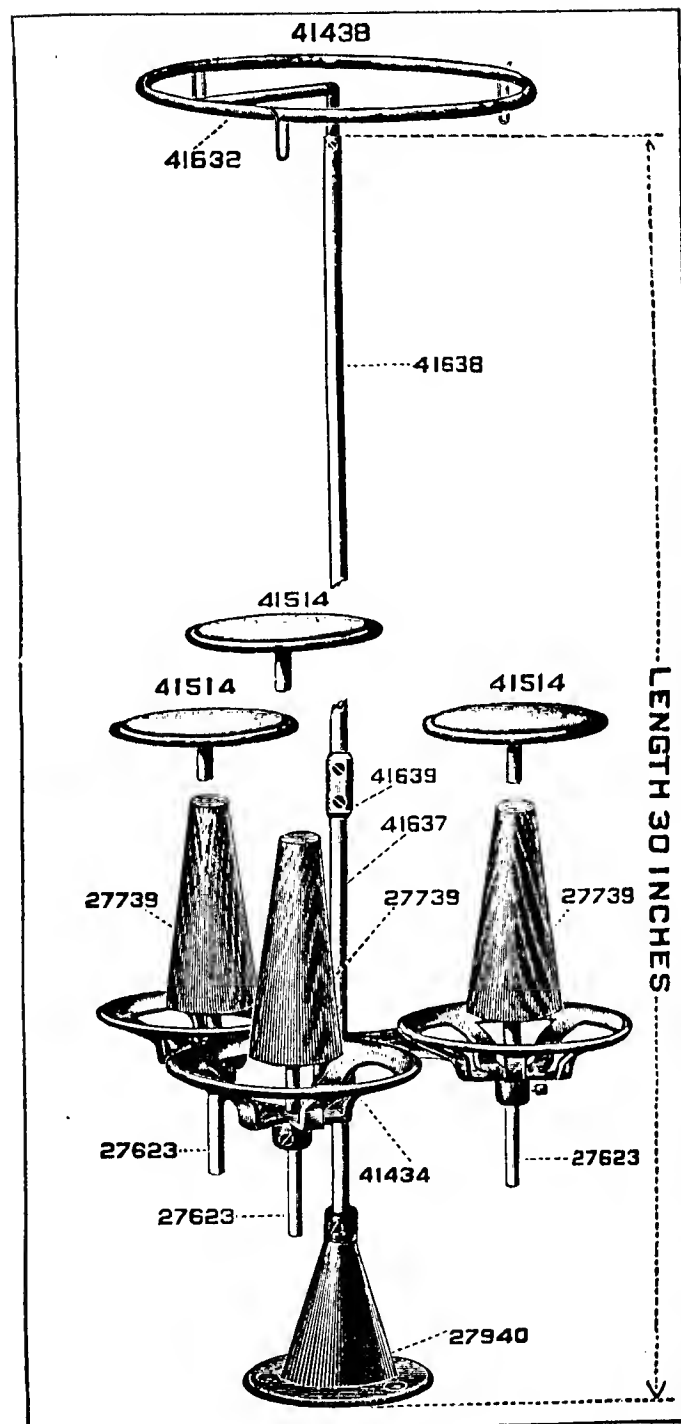


PLATE 7234—ONE-HALF SIZE

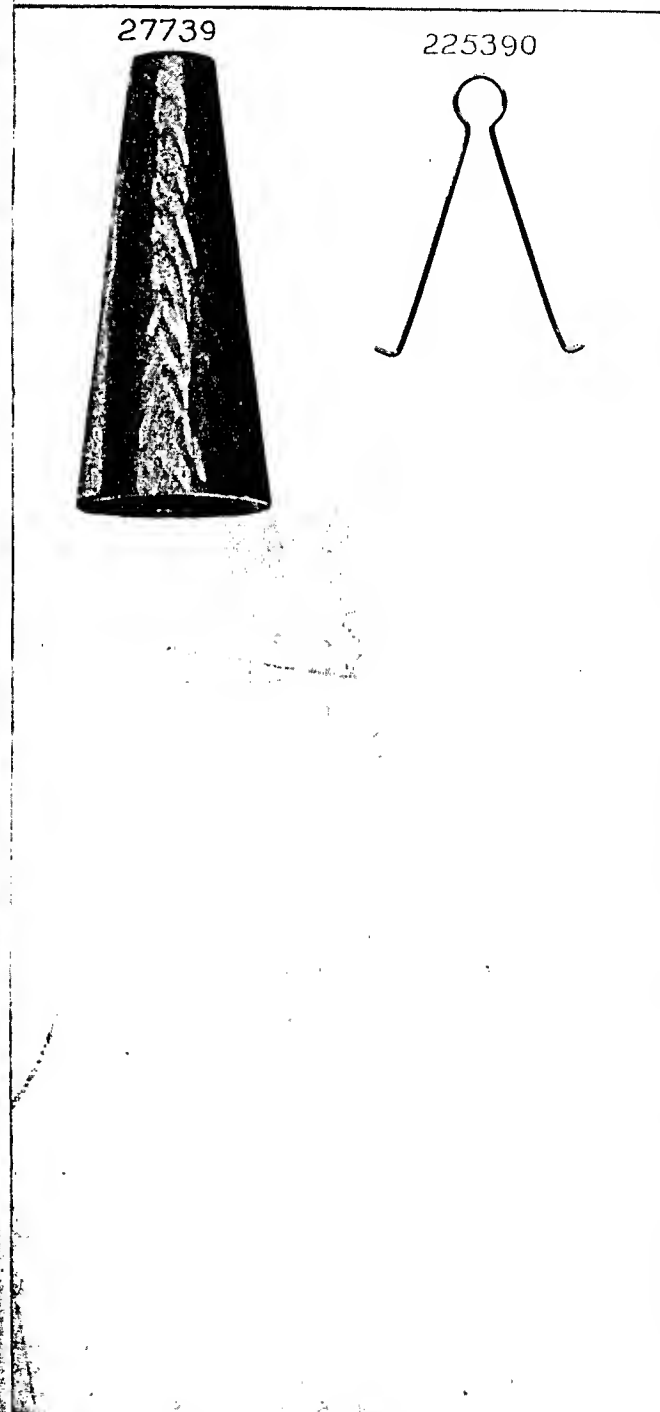


PLATE 7440—ONE-HALF SIZE

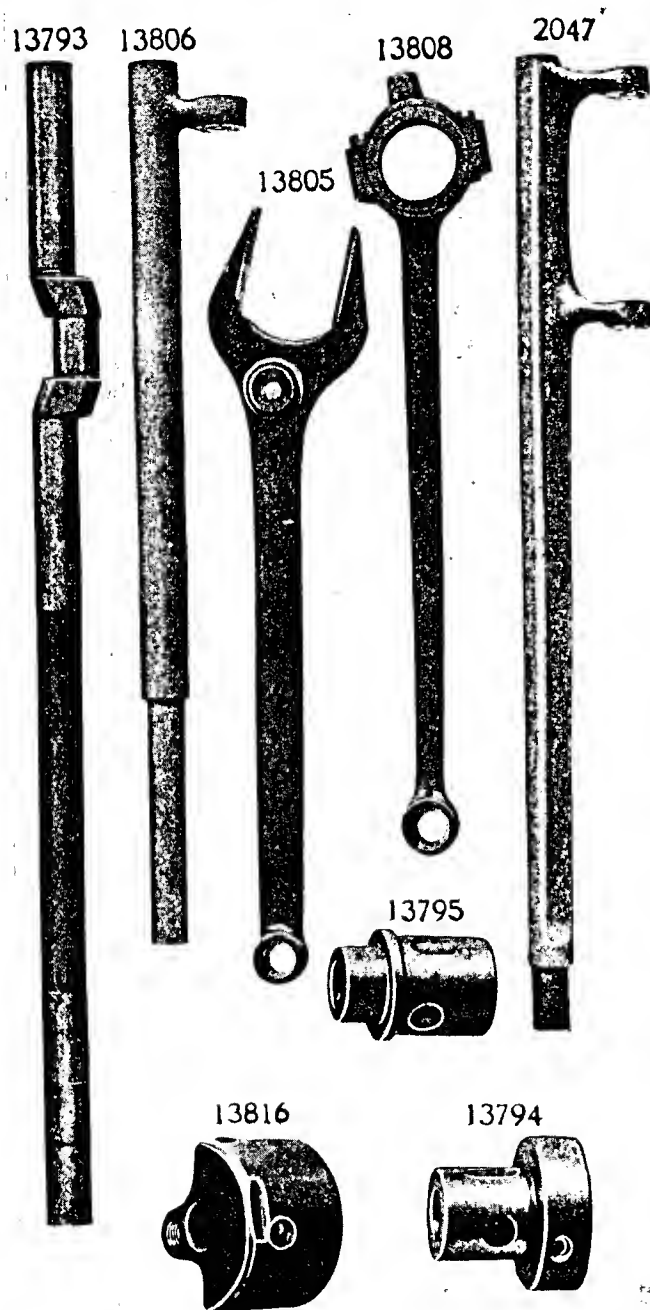


PLATE 7441—ONE-HALF SIZE

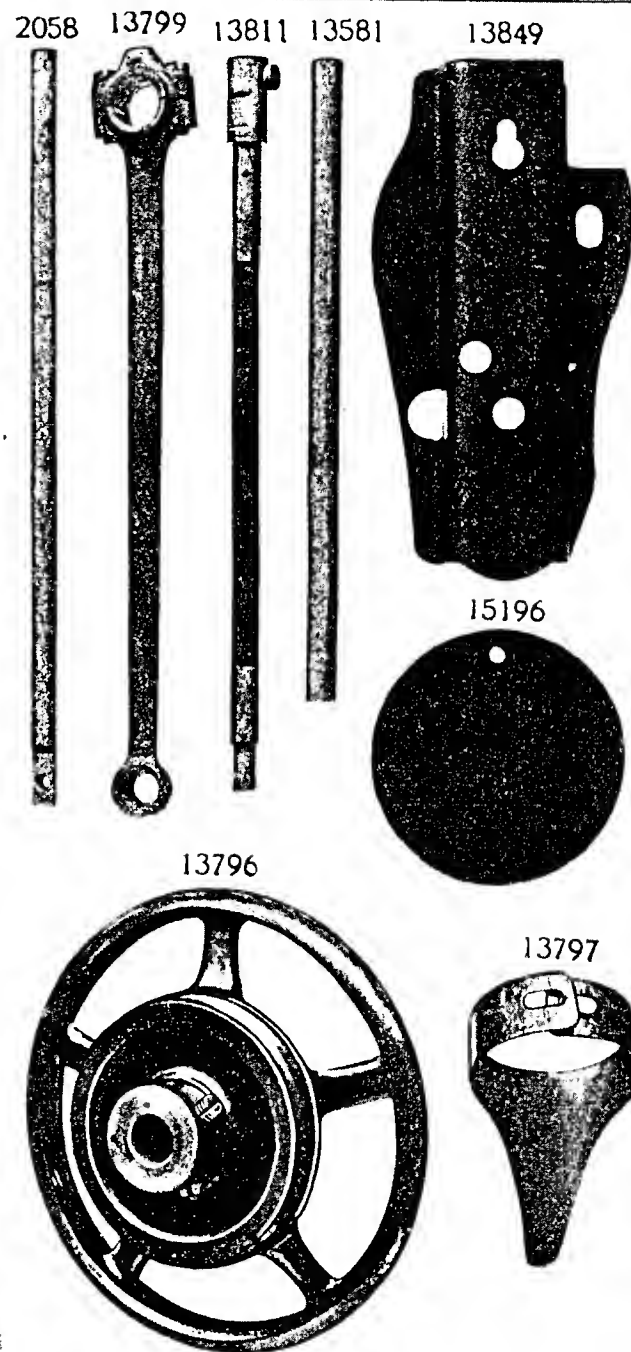


PLATE 7442—FULL SIZE

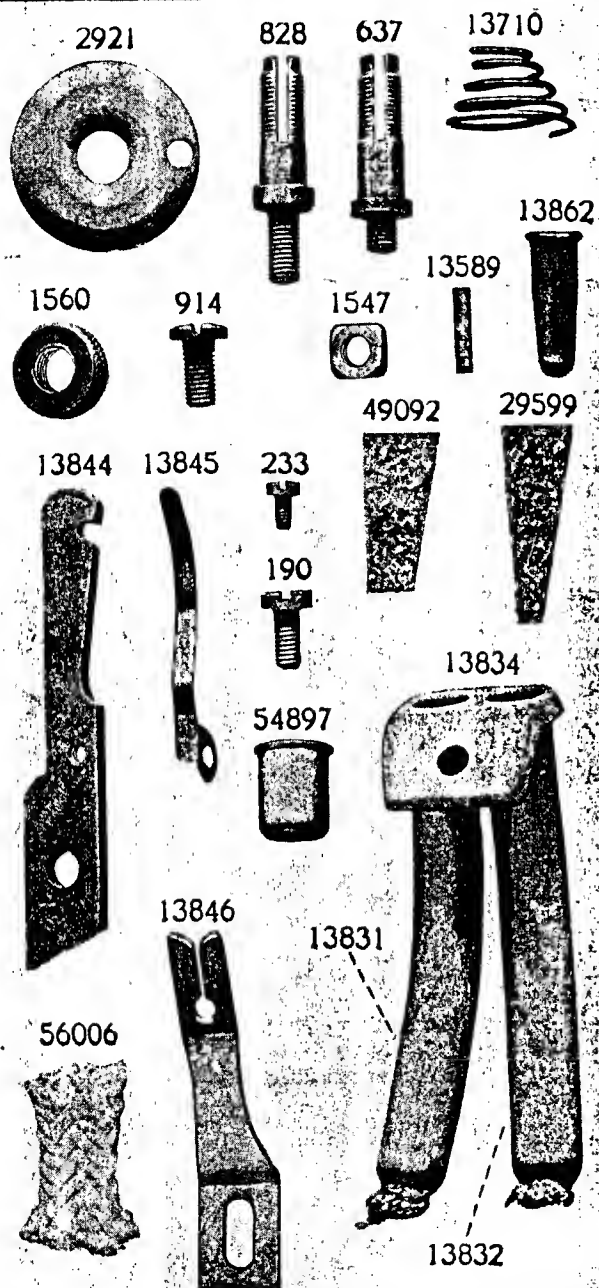
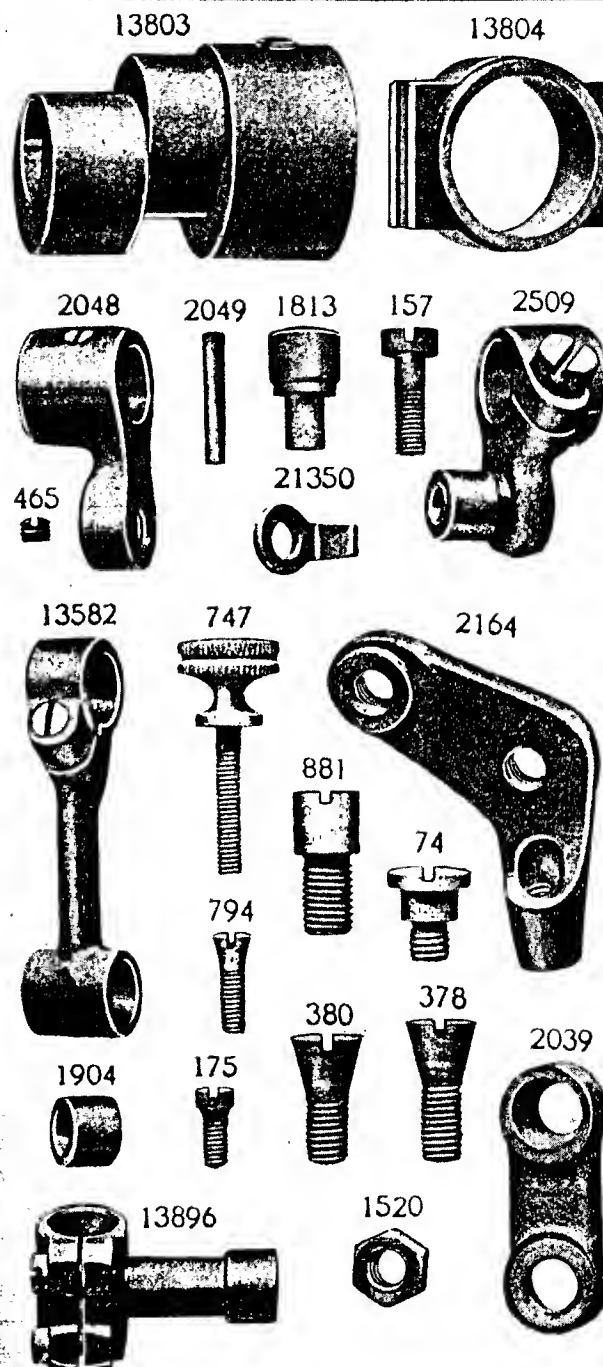


PLATE 7444—FULL SIZE



[illegible]

PLATE 7446—FULL SIZE

This plate contains 18 black and white photographs of mechanical components, each labeled with a number. The items are arranged in four rows. Row 1: 44139 (a circular plate with a central hole and a rectangular slot), 12361 (a T-shaped bolt head), 12405 (a diamond-shaped plate). Row 2: 41515 (a cylindrical pin), 7263 (a bolt head with a hexagonal base), 14008 (a long thin pin), 970 (a T-bolt with a threaded shank). Row 3: 13211 (a coiled spring), 41569 (a U-shaped wire), 14098 (a bolt head), 11118 (a cylindrical pin) and 26070 (a small pin). Row 4: 76 (a bolt head), 5735 (a curved wire), 12416 (a large circular plate with a hole), 36807 (a thick circular washer), 1521 (a small hexagonal nut), and 5601 (a cylindrical pin).

44139 12361 12405

41515 7263 14008 970

13211 41569 14098 11118 26070

76 5735 12416

36807 1521 5601

PLATE 7447—ONE-HALF SIZE

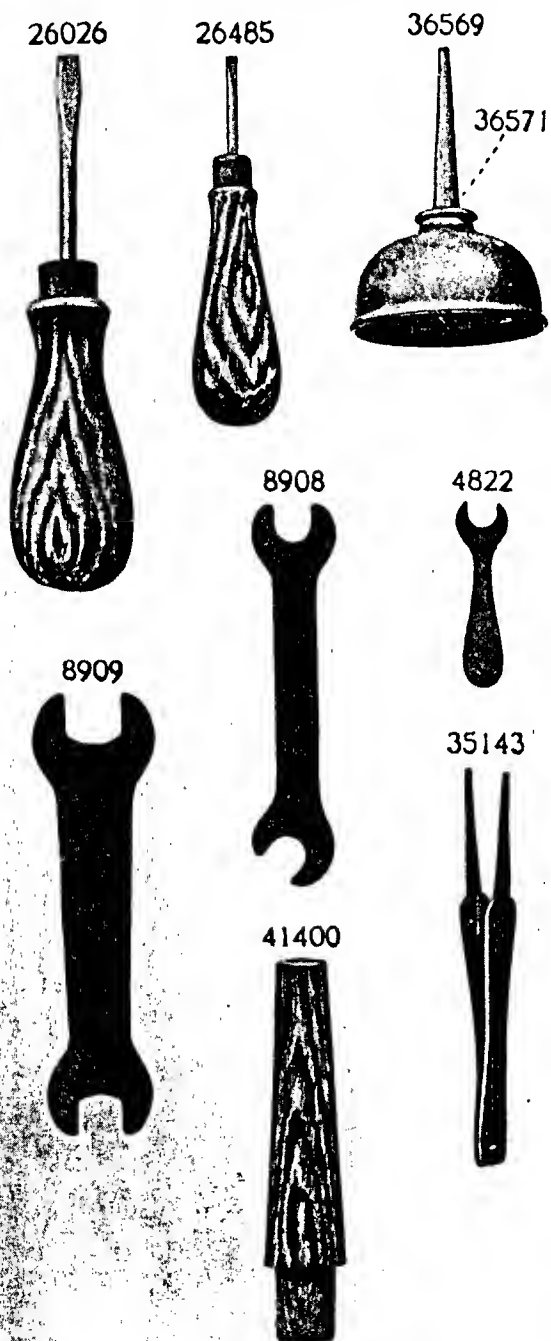


PLATE 7448—ONE-HALF SIZE

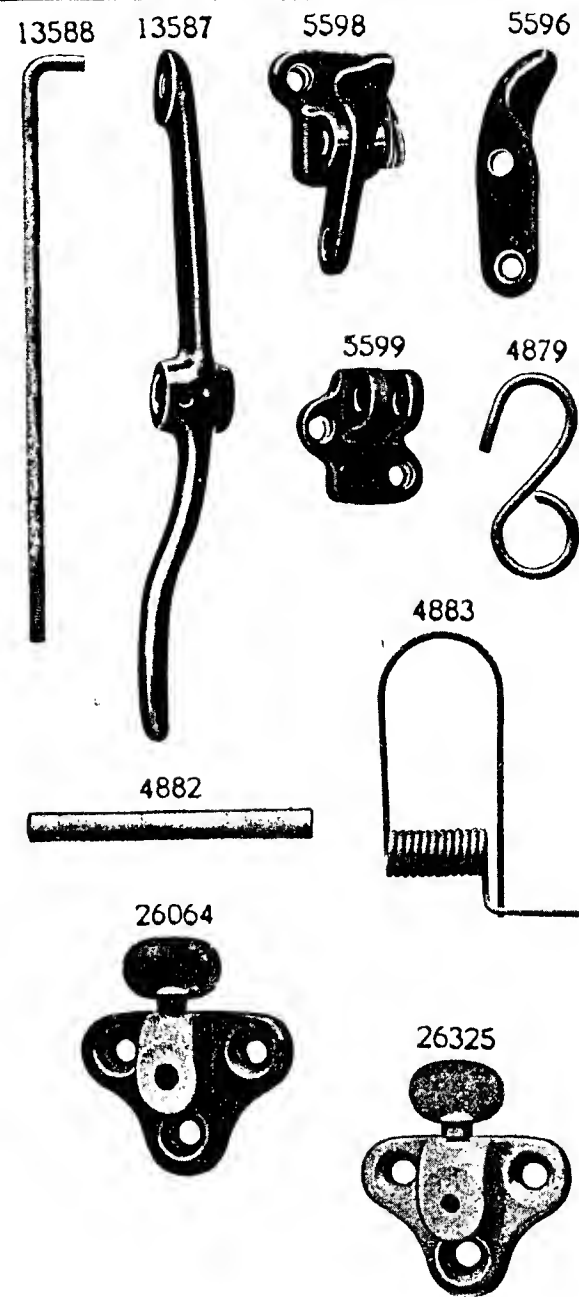


PLATE 7450—FULL SIZE

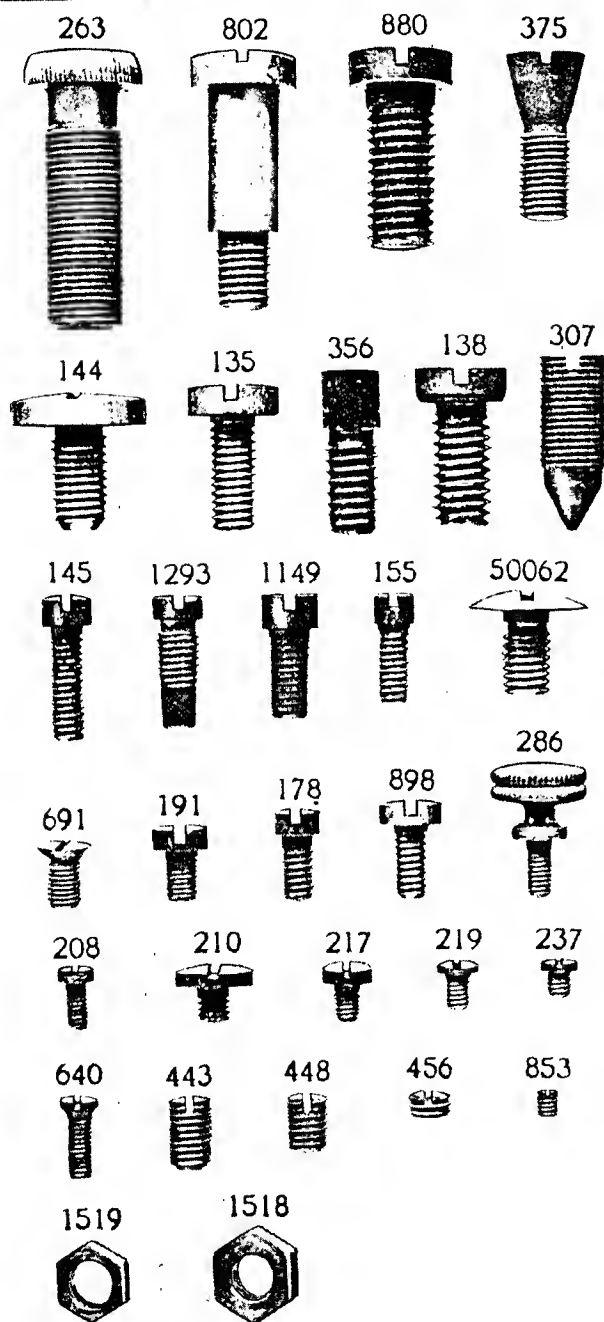


PLATE 7455—FULL SIZE

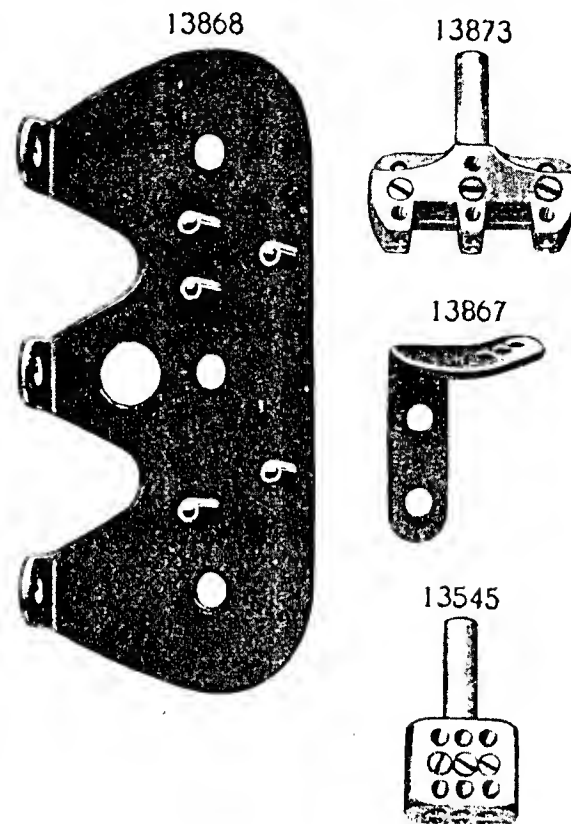


PLATE 7456—ONE-HALF SIZE

13851

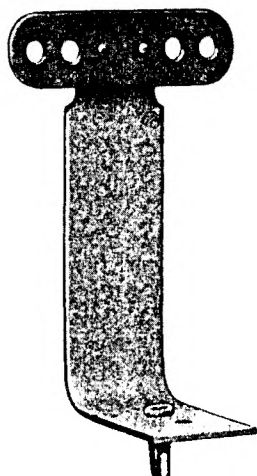


PLATE 7457—FULL SIZE

13854



PLATE 7467—FULL SIZE

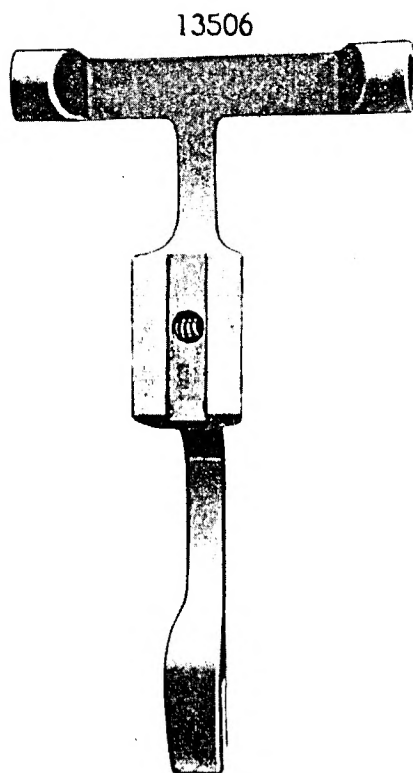
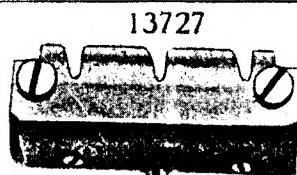


PLATE 7482—FULL SIZE

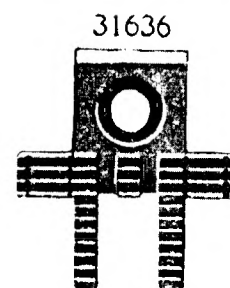
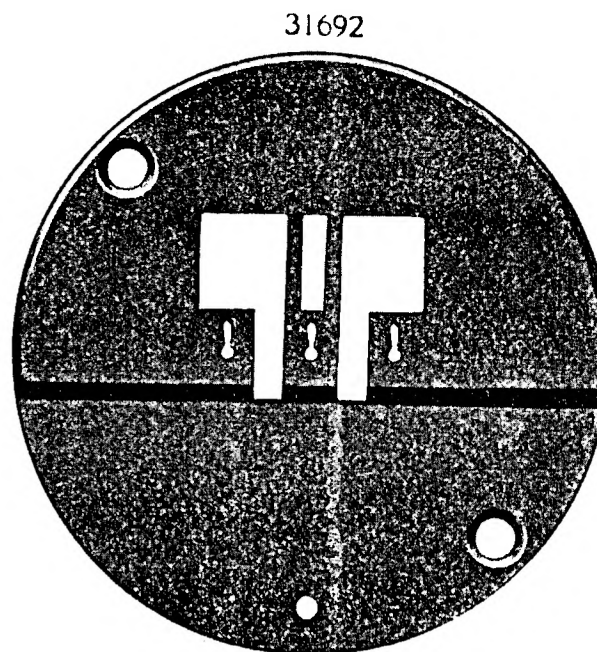
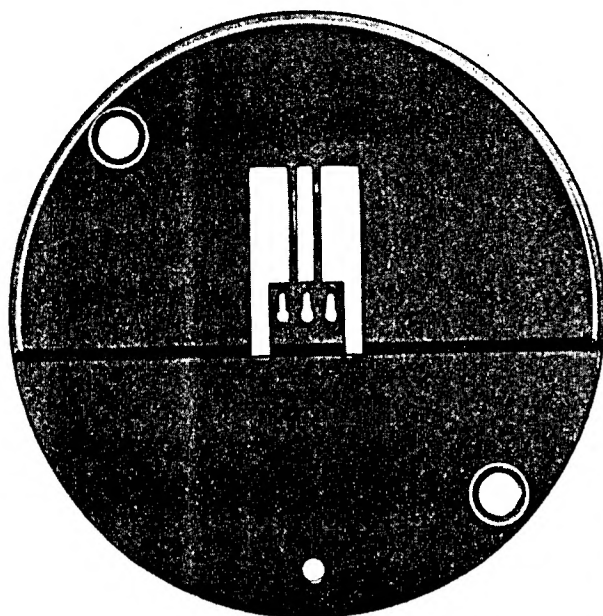


PLATE 7483—FULL SIZE

31693



30243

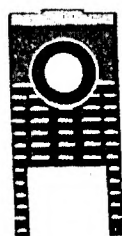


PLATE 8753—FULL SIZE

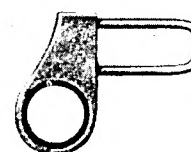
120341



13617



13940



225326



13929



13930



201696



225322



200383



56865



56864



15486



1513



201018



1454



315

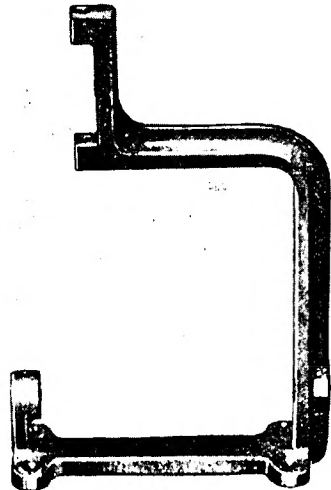


PLATE 8754—ONE-FOURTH SIZE

13928



27978



27972



27979

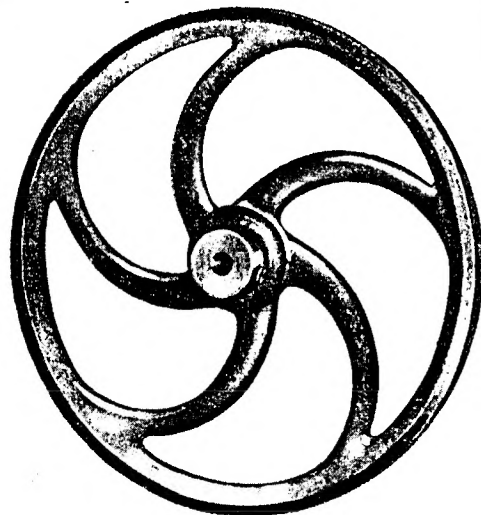


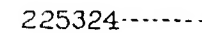
PLATE 8755—ONE-FOURTH SIZE

259143



225391

225324

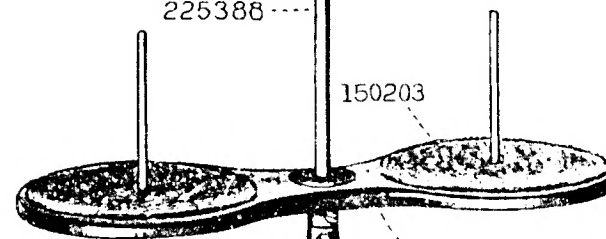


225259



225388

150203



225257

202490

